

disease but have been reported with hydralazine-induced SLE. Discontinuance of these drugs has been associated with a high percentage of reversibility of disease.

Recognition that pulmonary injury may be secondary to many drugs is of great importance in preventing patient morbidity and mortality.

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REFERENCES

- Bone RC, Wolfe J, Sobonya RE, et al: Desquamative interstitial pneumonia following long-term nitrofurantoin therapy. *Am J Med* 60:697-701, May 10, 1976
- Hazlett DR, Ward GW, Madison DS: Pulmonary function loss in diphenylhydantoin therapy. *Chest* 66:660-663, Dec 1974
- Sostman HD, Matthay RA, Putnam CE: Cytotoxic drug-induced lung disease. *Am J Med* 62:608-615, Apr 1977
- Alarcon-Segovia D: Drug-induced antinuclear antibodies and lupus syndromes. *Drugs* 12:69-77, 1976

The Staging of Lung Cancer: Clinical Benefits

TUMOR STAGING evaluates tumor size and location, the absence or presence and extent of lymph node or systemic metastasis, and tumor cell type. The techniques for staging lung cancer include physical examination, chest roentgenograms with hilar and mediastinal tomography, sputum cytology and isotopic scans. Bronchoscopy and mediastinoscopy are surgical methods for staging bronchogenic carcinoma.

The first benefit derived from staging has been the elimination of the unnecessary physical, emotional and financial cost of thoracotomy when that operation will not be beneficial. Therefore, patients with oat cell (small cell undifferentiated)

carcinoma or contralateral mediastinal metastasis, whose survival will not be enhanced by surgical operation on the chest, are treated by other means.

The data from prospective and retrospective staging studies are beginning to aid clinicians in choosing and timing other forms of therapy for lung cancer. McKneally has done a randomized prospective study of patients with stage I tumors treated by resection and followed from one to three years. There were nine recurrences with death among the control group of 25 patients. Of 19 patients who were given intrapleural bacille Calmette Guérin (BCG) immunotherapy in the immediate postoperative period, there was only one patient with recurrence of tumor in the same period and all patients survived. Patients identified to have stage III lung cancer are showing improved survival with a combination of radiotherapy and multiagent chemotherapy (cyclophosphamide (Cytoxan®), doxorubicin hydrochloride (Adriamycin®), methotrexate and procarbazine).

How extensive should staging efforts be? In a patient with advanced lung cancer, x-ray studies of the chest, physical examination, and evaluation of symptomatic disease and immunocompetence (denitrochlorobenzene [DNCB] skin test) should suffice. For patients with malignancy in more confined stages, a group of informed and concerned cancer therapists should apply uniform diagnostic and treatment methods in the best known manner.

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REFERENCES

- Mountain CF, Carr DT, Anderson WA: A system for the clinical staging of lung cancer. *Am J Roentgenol Radium Ther Nucl Med* 120:130-138, Jan 1974
- McKneally MF, Maver C, Kauser HW, et al: Regional immunotherapy with intrapleural BCG for lung cancer. *J Thorac Cardiovasc Surg* 72:333-338, 349, Sep 1976

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